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DEPARTMENT OF THE NAVY
COMMANDER NAVAL AIR FORCE
UNITED STATES ATLANTIC FLEET
NORFOLK, VIRGINIA 23511-2494

COMNAVAIRPACINST 3500.69A/
COMNAVAIRLANTINST 3500.68A
NAVAIRPAC N63
NAVAIRLANT 81

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COMNAVAIRPAC INSTRUCTION 3500.69A/COMNAVAIRLANT INSTRUCTION 3500.68A

Subj: COMBAT SYSTEMS TRAINING TEAM (CSTT)

Ref: (a) OPNAVINST 3120.32C
(b) COMNAVAIRPACINST 3500.20/COMNAVAIRLANTINST 3500.20

Encl: (1) Tactical Scenario Procedural Guide
(2) Casualty Control Scenario Procedural Guide
(3) Combined Combat Systems Tactical/Casualty Control Scenario
Procedural Guide

1. Purpose. To define the organization, duties and responsibilities of Combat Systems Training Teams (CSTT) aboard aircraft carriers (CV/CVN) of the U.S. Pacific and U.S. Atlantic Fleets. This instruction provides specific guidance to conform with the broad outline of training team requirements contained in reference (a). Reference (b) contains guidance for all required ship's training teams. This is a complete revision and should be reviewed in its entirety.

2. Cancellation. COMNAVAIRPACINST 3500.69/COMNAVAIRLANTINST 3500.68

3. Discussion

a. An aircraft carrier and embarked air wing form a total combat system that requires extensive coordination and cooperation to smoothly integrate training requirements into daily shipboard operations. An efficient shipboard training program is needed to attain and maintain a high level of combat readiness. An effective program consists of both operational and functional training, and includes equipment configurations, watchstanding organization, operational and standard operating and casualty control procedures, tactical employment of equipment, casualty repair and damage control. Additionally, it is imperative that training procedures and scenarios satisfy real world requirements.

b. Today's Tactical Training Strategy (TTS) requires much more shipboard involvement in training planning, execution, and evaluation than was required before the Afloat Training Organization (ATO) was established. Recognizing the nature of the training challenge, the CSTT is established as the shipboard organization responsible for coordinating combat system training requirements in all warfare areas and assessing the readiness of the ship's equipment and personnel for combat. Essentially, the quality of the ship's Combat Systems training is only as good as its CSTT.

4. Organization. The CSTT shall consist of a Team Leader (normally the Combat Direction Center Officer), Combat Systems Maintenance Officer (for matters concerning casualty control and Combat Systems Operational Sequencing System) and qualified officers and senior enlisted personnel (representing each of the ship's functional warfare mission areas). CSTT membership should include the most qualified personnel in each watchstation. It is recommended that the training team consist of the following:

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CDC Mission Area

1. TAO
2. Air
3. Surface
4. Subsurface

Subject Matter Experts by Rate

FC, DS, ET, RM, OS, EW, IC, IS
EW, RM, FC, OS
RM, OS, IS.
AW, DP, OS.

Varying levels of personnel qualifications, system complexity and the extent of training required may dictate additional members be assigned, including Engineering Department personnel (MM/EN/EM/IC). The CSTT is responsible, under the Combat Direction Center Officer (CDCO), for identification, formulation, integration and conduct of all combat systems tactical and casualty control training. CSTT members will actively participate in classroom training for Combat System Casualty Control (CSCC), tactics and system capabilities. The following specific billets are established to meet these requirements:

a. Team Leader. The Team Leader is normally the CDCO; however, duties may be delegated to a senior CSTT member charged with conducting a specific training evolution. The Team Leader directly manages all aspects of the CSTT and shall:

(1) Be a fully qualified Tactical Action Officer (TAO) and a member of the Planning Board for Training (PB4T).

(2) Formulate a drill package tailored to the specific tactical or casualty control training goal(s) using approved tactical publications, exercise scenarios and drill guides provided to stimulate the systems and provide maximum realism.

(3) Identify overall tactical impact of the drill.

(4) Present the proposed drill package and an assessment of overall tactical impact to the Commanding Officer for approval.

(5) Conduct a pre-exercise briefing for all assigned CSTT members.

(6) Ensure a pre-exercise briefing is conducted for all watch team members being trained.

(7) Supervise the conduct of the training package, paying particular attention to inter-divisional and inter-departmental coordination.

(8) Conduct post-exercise debrief and collect/review observer critique sheets, route to the Commanding Officer for review and record training with Training Officer.

b. Drill Initiator(s). The drill initiators establish tactical scenarios to prompt tactical executions and/or impose equipment casualties per the drill guides. Initiators must be thoroughly familiar with the specific drill being conducted. Additionally, initiators may assume the role of evaluator once a drill has begun. They shall:

(1) Review all steps listed on drill guide(s) before a drill begins and ensure compliance with specified steps.

(2) Ensure timely initiation of the prebriefed schedule of events.

(3) Provide post-exercise feedback and recommendations to the Team Leader.

c. Evaluators. The evaluator(s) will provide training, evaluation and on-station debrief. These personnel will be familiar with the drill being conducted. They shall:

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- (1) Arrive on station before exercise begins to conduct all pre-exercise checks.
- (2) Observe all factors specified in the drill guide and on the standard critique form.
- (3) Provide prompting as required to prevent disruption of a drill's training objective.
- (4) Complete necessary critique forms for all exercises observed and deliver them to the Team Leader prior to the exercise debrief.
- (5) Provide a post-exercise debrief on deficiencies noted and recommendations for corrective actions.

d. Safety Observer(s). The function of Safety Observer(s) is an inherent duty of all drill initiators and evaluators. A special Safety Observer may be assigned when necessary for a particularly complex or potentially dangerous evolution. Whether specifically assigned or not, Safety Observers shall ensure all exercises are conducted per general and drill-specific safety precautions and requirements.

5. Training Methods. No single method of training will satisfy all requirements. Accordingly, CSTT will use training methods tailored to specific goals. Enclosures (1) through (3) are provided to establish tactical/casualty control scenario procedures in support of CSTT training efforts. Additionally, partial drills during periodic live services are highly encouraged (e.g., conducting detect to engage during Air Intercept Control (AIC) qualifications). This will allow warfare area "cell" training without an entire Condition I Team being manned.

a. CSCC Drill Periods. Combat Systems Casualty Control (CSCC) drill periods will be scheduled periodically to provide realistic casualty control training. These drill periods will be scheduled during Planning Board for Training to minimize conflicts with other shipboard functions and training evolutions. During CSCC drills, CSTT members will initiate casualties and observe operator and technical performance. To support specific training goals, sequential drill packages should be selected which provide for phased training. Drills for training sessions early in a training cycle shall emphasize individual work center training in casualty control. Follow-on drill periods will emphasize and support team training. When training has elevated to a sufficient level, a drill selection should stress the involvement of the TAO and Electrical Casualty Control Watch. All CSCC drills will be COLD/HOT checked prior to initiation of all CSTT training scenarios to prevent equipment casualties or personnel injuries.

b. Integrated Casualty Control Training. Integrated casualty control training conducted by the Ship's Training Team (which consists of the CSTT, Engineering Control Center Training Team (ECCTT) and Damage Control Training Team (DCTT) shipboard training teams) is to be conducted on a periodic basis. Integrated training with the Engineering and Damage Control Teams is conducted with drills involving casualties which cascade throughout the ship. (Figure 3-2 provided as an example of an integrated casualty control package cover sheet.) The effects of these casualties should unite the ship in its efforts to combat the cascading problems. Normally, the ship will begin the evolution in Condition III. The scenario may drive the ship to Condition I. Exercise should stress inter-departmental coordination to provide a "fight through" concept whenever applicable.

c. Tactical Training. Scheduled exercises, operations and all underway periods provide excellent tailored training opportunities. In addition to scheduled CSCC periods, operational scenarios will be developed to further hone operator and technician skill in support of the ship's operational

mission. CSTT members will be assigned by the CDC Officer to manage and observe special training evolutions. These periods will include execution and evaluation of existing and newly developed tactical initiatives (TACNOTES, TACMEMOs).

d. Battle Group Training. For a ship to operate effectively in a Battle Group environment, all combat systems watchstanders must be intimately familiar with the Battle Group Commander's operating instructions, various Operational Tasking (OPTASKs), Operational Plans (OPLANs), Rules of Engagement, reports, etc. Underway periods, specifically Fleet Exercises, are ideal opportunities to develop proficiency in operating within a Battle Group. The CSTT Team Leader will assign members to review the Battle Group Commander's Fleet Exercise Training Plan. The CSTT will identify, develop and schedule training to support and enhance shipboard Battle Group readiness as well as previously identified training shortfalls.

6. Responsibilities. Specific duties and responsibilities of CSTT members are specified below:

a. Combat Direction Center Officer (CDCO). In support of the CSTT, the CDCO is responsible to the Operations Officer for the performance of the following:

(1) Overall management of the CSTT to ensure support of Type Commander training requirements. Conduct exercise prebriefs, evaluate exercise performance and conduct post-exercise debriefs.

(2) Identify training shortfalls within respective CDC Modules and provide guidance to facilitate selection of required training to correct the deficiencies.

(3) Maintain current training records which reflect the conduct of all CSTT supported functions and CSTT member qualifications.

(4) Maintain current assignment of personnel to the CSTT to ensure representation of all technical specialties.

(5) Provide tasking to CSTT members in support of the conduct of inter-system maintenance, special events and selected exercises.

b. Combat Systems Maintenance Officer (CSMO)/Electronic Material Officer (EMO). The CSMO/EMO is responsible to the CSTT Team Leader for performance of the following:

(1) Organize all CSTT casualty control training periods, assemble drill packages, obtain approval for the conduct of specific drills and make all preparations in support of drill execution.

(2) Function as the Assistant CSTT Coordinator.

(3) Train CSTT members in the proper conduct of their duties as casualty initiator, exercise observers, safety observers, and trainers.

(4) Develop and manage a long-range CSTT training plan to provide phased training in CSCC.

(5) Maintain a current file of approved CSCC drills.

(6) Act as the clearing house for all recommendations and technical feedback concerning Combat Systems Casualty Control (CSCC).

(7) Ensure all CSCC drills are COLD/HOT checked prior to implementation.

c. CSTT Members. CSTT members are responsible to the Team Leader for the following:

(1) Maintain current qualifications within their area of technical and operational expertise.

(2) Attend prebriefs for CSTT drill periods and special evolutions, as assigned.

(3) Perform duties as drill initiators, exercise observers, safety observers and trainers as directed by the Team Leader.

(4) Attend periodic CSTT training and seminars to maintain qualification.

7. Team Member Prerequisites. Ships vary widely in physical layout and watch organizations. Additionally, manning levels affect the numbers and qualifications of CSTT candidates. Select Condition I watchstanders will normally train and evaluate Condition III watchstanders. The following requirements or cautions should be considered in CSTT personnel selection:

(a) CSTT members will complete CSTT Personnel Qualification Standards as well as be qualified for the watchstation they are assigned to supervise, evaluate and train. Within that constraint, they should be of the highest caliber and possess the knowledge and ability to effectively interact with people, and critically assess their abilities. Assignment to CSTT shall be accorded appropriate recognition. Each member can contribute notably to combat systems watch team and consequently, overall ship combat systems readiness and effectiveness.

(b) CSTT members must have a keen respect for safety. They will be required, under certain scenarios, to allow watchstanders to make mistakes up to, but not exceeding, the bounds of personnel or equipment safety. At that point, they must intervene and take charge of the situation.

(c) CSTT members shall be designated in writing by the Commanding Officer or designated representative.

8. Action

a. Commanding Officers will ensure that a functioning CSTT is established and maintained.

b. ATG shall train and assess ship's CSTT during Crew Certification, Command Assessment of Readiness and Training (CART), Tailored Ship Training Availability (TSTA), Composite Training Unit Exercise (COMPTUEX) and other combat systems related visits. ATG shall report non-compliance issues to the Commanding Officer via the ship's chain of command for prompt resolution. A further report should be made to the ISIC (info TYCOM) of non-compliance issues (i.e. qualified personnel shortages, equipment install/upgrade schedule conflicts, special training needs, etc.) which cannot be overcome by ship's company prior to or during the training event. ATG shall provide a one to three day CSTT class specific assist visit on request, and maintain a data base of generic drill packages for ships to choose from and further tailor to their own requirements.

c. The ISIC should periodically review the content of the CSTT's tactical training scenarios to ensure inclusion of Battle Group doctrine. Battle Group Staff/CSTT interface should begin early in the turn-around cycle in order to take advantage of mutual training opportunities between Battle Group units in port or at sea. Mission specific training scenarios (AW, AS, AX, etc.) should be scheduled in port as often as possible in order to maintain the training

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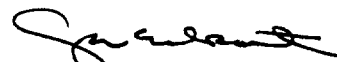
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level achieved by operators and decision makers at each step of the training cycle.

d. The Type Commander (TYCOM) shall ensure compliance with the above and will provide assistance in resolving non-compliance issues which cannot be solved without TYCOM-level assistance.



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TACTICAL SCENARIO PROCEDURAL GUIDE

1. Tactical scenarios will be developed to ensure watchstanders have the requisite knowledge and skills to fight the ship in applicable mission/warfare areas. Ship's doctrine, rules of engagement and current tactical procedures must be incorporated. Basic scenarios will test operators on equipment operation. Intermediate scenarios will test the entire watch team in tactical decision making and in flexing the combat system in a single warfare area. Advanced scenarios will require flexing the combat system in multiple warfare areas. Individual drill guides are to be signed by the CDCO, not as authority to conduct the drill, but as proof of authenticity. The CDCO's signature indicates the drill is current and safety checked.

2. CSTT Member Qualification

a. CSTT members shall be designated in writing by the Commanding Officer. Tactical training must be conducted under a TAO qualified officer. Tactics employed must be approved by the Commanding Officer.

b. CSTT qualification is based upon Navy Enlisted Classification (NEC), experience and completion of CSTT PQS.

3. Scenario Planning. The Team Leader shall assemble/develop scenarios to meet specific training requirements. Upon selection of the desired scenario, the chain of command will be briefed and the Commanding Officer's approval to conduct the drill must be obtained. To properly plan a training scenario, the Team Leader must consider the following:

- a. Training goals.
- b. The purpose of the training; who is to be trained.
- c. Embedded training devices available.
- d. Figure 1-1-1 is a guideline for scenario development.

4. Pre-Exercise Briefs. After the scenario has been approved, the CSTT Team Leader shall conduct a pre-exercise brief. The following information must be included in the brief:

- a. Training objective(s).
- b. Coordination and communication requirements for CSTT.
- c. Specific assignments of team members.
 - (1) Problem control positions.
 - (2) Trainers/evaluators.
 - (3) Safety observers.
- d. Disclosure procedures and timing.
- e. Casualty insertion and timing (optional).
- f. Safe considerations and procedures.

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5. Exercise Conduct. The exercise shall be conducted under the management of the CDCO. CSTT members will note observations on standard CSTT critique (Figure 1-2-1). Members will pay particular attention to the detailed observation of the following key points and prompting questions:

a. Watchstations and Responsibilities. Did the operators show a thorough knowledge of their duties and demonstrate the correct procedures in performing those duties? Did all watchstanders understand and use the watch team chain of command?

b. Were all recommendations reported to the appropriate station promptly? Were all tactical recommendations correct and per current procedures?

c. Were coordination and internal communication requirements sufficient to support the ship's mission?

d. Were drill objectives achieved?

6. Exercise Debriefs. Valuable training lessons learned will be lost if training exercises are not properly debriefed. CSTT will conduct debriefs in two stages:

a. Watchstation Debrief. The CSTT member, observing the exercise scenario, will conduct an on-station debrief of all aspects of personnel performance.

b. Overall Debrief. The CSTT will debrief all exercises. Members will submit critique forms to highlight problem areas and lessons learned for use in designing future scenarios stressing recurring problem areas.

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EXERCISE PLANNING SEQUENCE

- [] INITIAL SCOPE COMPLETE
- [] ASSIGN SCENARIO PLANNING TEAM // (CSTT ASSIGNED)
- [] ASSIGN EXERCISE PLANNER // (CSTT TEAM LEADER)
- [] IDENTIFY EXERCISE OBJECTIVE
- [] COMPLEXITY // BASIC/INTERMEDIATE/ADVANCED
- [] WARFARE AREA // AAW/ASW/ASUW/OTHER
- [] PRIMARY MISSION TASKING
- [] IDENTIFY WATCH TEAM TO BE TRAINED
- [] CONDITION // I/III/
- [] DETERMINE LENGTH OF SCENARIO
- [] IDENTIFY GEOGRAPHIC LOCATION OF SCENARIO
- [] DETERMINE MISSION/TASKING ORDERS (FOR COMMAND BEING TRAINED)
(BE "CREATIVE" BUT REALISTIC!!!)

- [] IDENTIFY SCENARIO SUPPORT CONSIDERATIONS
- [] DOCUMENTS PERTINENT TO SCENARIO DEVELOPMENT
- [] AAW OPTASK // AS APPLICABLE
- [] ASW OPTASK // AS APPLICABLE
- [] ASUW OPTASK // AS APPLICABLE
- [] OTHER
- [] GEOPOLITICAL SITUATION DETERMINED
- [] HARD COPY WRITTEN _____
- [] RULES OF ENGAGEMENT (ROE) DETERMINED

- [] HARD COPY WRITTEN _____

- [] DETERMINE ENVIRONMENTAL CONDITIONS FOR AREA OF OPERATIONS

[] WIND SPEED _____/DIRECTION _____/SEA STATE _____

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- ☐ CEILING _____/VISIBILITY _____/PRECIPITATION _____
- ☐ TEMPERATURE _____/ICING LEVELS _____/DEWPOINT _____
- ☐ BAROMETRIC PRESSURE _____
- ☐ LAYER DEPTH (BT DATA)
- ☐ SONAR RANGE PREDICTIONS
- ☐ IREPS
- ☐ SATVUL
- ☐ EMCON
- ☐ DETERMINE FRIENDLY FORCES // (BASED ON ESTABLISHED OBJECTIVES)
- ☐ DETERMINE FRIENDLY (AIR/SURFACE/SUBSURFACE) ORDER OF BATTLE
- ☐ DETERMINE INITIAL EMCON STATUS OF FRIENDLY FORCES
- _____
- _____
- ☐ DETERMINE AVAILABLE FRIENDLY "THEATER" ASSETS IF APPLICABLE (DETERMINE BY
THEATER OF OPERATIONS/CONTROLLED BY SCRIPTING TEAM)
- ☐ DETERMINE INITIAL EMCON STATUS OF AVAILABLE ASSETS
- _____
- _____
- ☐ DETERMINE HOSTILE FORCE(S) // (BASED UPON ESTABLISHED OBJECTIVES)
- ☐ DETERMINE HOSTILE (AIR/SURFACE/SUBSURFACE) ORDER OF BATTLE
- ☐ DETERMINE INITIAL EMCON STATUS OF HOSTILE FORCES/CONTACTS
- _____
- _____
- ☐ DETERMINE NEUTRAL CONTACTS TO BE INCLUDED IN THE SCENARIO (REMEMBER TO
CONSIDER CONTACT DENSITY // BE REALISTIC)
- _____
- ☐ DETERMINE INITIAL EMCON STATUS OF NEUTRAL FORCES
- _____
- _____

TACTICAL SCENARIO CRITIQUE

EXERCISE _____ DATE _____

CSTT- MEMBER _____ WATCHSTATION _____

WATCHSTANDER OR TEAM MEMBERS:

- I. PREPARATIONS (INCLUDING INITIAL SETUP)
- II. PERSONNEL KNOWLEDGE
- III. COMMUNICATIONS
- IV. ORGANIZATION (EXECUTION)
 - A. PROCEDURAL DEFICIENCIES
 - B. EQUIPMENT DEFICIENCIES
 - C. SAFETY VIOLATIONS
- V. NOTABLE STRENGTHS/SUCCESSSES
- VI. OTHER REMARKS
- VII. RECOMMENDATIONS (USE REVERSE AS NECESSARY)

PERFORMANCE EVALUATION:

SATISFACTORY _____ MARGINAL _____ UNSATISFACTORY _____

VIII. REMARKS

SIGNATURES: CSTT OBSERVER _____ WATCHSTANDER _____

CSTT LEADER _____

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CASUALTY CONTROL SCENARIO PROCEDURAL GUIDE

1. Drill Guide Development. Drill cards will be written in a standard format. Drills will be developed for various levels of impact and designed to flex-personnel in a phased, cumulative training method.

a. Drill Guides. Define the inserted casualty and the procedures for insertion and response to that casualty in a specific equipment, subsystem or system. The majority of casualties should be of the type expected from battle damage or reconfiguration. The Ship's Emergency Response Team (SERT), under the supervision of the CSMO/EMO, is responsible for developing and validating drill guides. The CSMO/EMO will sign each individual drill card, not as authority to conduct the drill, but as proof of authenticity. The CSMO/EMO's signature indicates the drill is current and safety checked.

b. Drill Guide Format (Figure 2-1-1). The Drill Guide will be composed of the following sections:

(1) Drill Guide Identification. Identify each guide with a two part code, e.g., DG 05/EW.

(a) Part one will identify the drill guide number; in the above example, DG 05.

(b) Part two will identify the system, i.e., Electronic Warfare.
Examples:

DG 1/SLQ-25 - Drill #1, SLQ-25 Nixie

DG 2/AUX- Drill #2, Auxiliary Equipment

DG 4/CS- Drill #4, Combat System (used when casualty involves several systems, such as interface casualties)

(2) Defines the fault effect desired, i.e.:

(a) Loss of power to an equipment or system, caused by tripped circuit breakers, blown fuses or engineering casualties, requiring switching to the alternate source or locating the failed component.

(b) Loss of interface through computer failures and simulated broken cables caused by missile hazards and shock waves.

(c) Loss of auxiliary support equipments, cooling water systems and air systems, through ruptured pipes, clogged strainers, failed pumps, power losses, etc.

(d) Loss of a system, subsystem or equipment.

(e) Emergencies - fires, flooding, hot guns, misfires, etc.

(f) Equipment switch positions. Casualties inserted in printed circuit boards, terminal boards, backplane wiring harnesses, etc. are not recommended because of difficulty in insertion and hazards to personnel and/or equipment.

(3) Purpose. Explains the purpose of the particular drill, i.e., to train technician(s) to properly respond to (drill title) and evaluate the area supervisor's ability to coordinate and direct casualty response actions.

(4) References. This item identifies the applicable procedures and other documentation (T/Ms, etc.).

(5) Safety Precautions. Will contain at least the following:

(a) Forces afloat will comply with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100 series.

(b) Any additional safety precautions required by references, T/Ms, OPs, etc.

(6) Cautions. Identifies any special care or concerns associated with fault insertion.

Examples:

(a) Ensure system is not critical to flight safety.

(b) Ensure transmitter is not in radiate.

(7) Description of Procedure. This item should identify:

(a) Crew watch condition (if applicable).

(b) Any special system setup conditions before fault insertion.

(c) The specific instructions for actual fault insertion and alternate fault insertion (if identified).

(8) Expected Actions. Describes:

(a) How and where the fault will manifest itself (e.g., loss of SPS-67 video to CDC, light indication, visual alarm, etc.).

(b) How personnel are expected to respond to the casualty, including the procedures and documentation to be used.

(9) Expected/Possible Problem. Contains:

(a) Tactical impact during the period of the drill.

(b) Any additional corrective action that may be required as a result of the fault insertion (e.g., calibration or alignment if the inserted fault disturbs proper setting).

c. Drill Guide Validation. Validation is accomplished in two parts.

(1) Part One - "Cold Checking". A process of verifying locations, numbers, materials, insertion procedures, symptoms, restoration, reconfiguration procedures and casualty initiation procedures. The drill is reviewed for technical accuracy, procedurally checked by NEC related technicians and verified not to pose a hazard to personnel or equipment.

(2) Part Two - "Hot Checking". A process in which a cold checked drill is conducted on operational equipment for validation.

d. Once validated, the Team Leader may retain the drill for future use. All drills must be verified current by, at a minimum, cold checking prior to each usage.

2. Drill Package Execution. Effective training realizing desired goals is achieved through well organized drill packages, prebriefs and critiques identifying strengths and weaknesses. By highlighting weaknesses and

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establishing appropriate training requirements to increase proficiency, effective combat system operations and maximum combat system readiness will be the norm. An effective drill package fulfills its purpose when it is prebriefed, properly executed on time and thoroughly critiqued. Figure 2-2-1 is provided as an example of a casualty control drill package.

a. Pre-Brief. Before the execution of the drill package, a thorough pre-brief is required. During the pre-brief, each member will be provided with a copy of the drill package and critique sheets. The casualty imposers/observers will be provided a copy of the applicable drill guide for review and comment. The tactical situation, equipment status and safety considerations for personnel and equipment will be thoroughly briefed. Conflicts or potential problems must be resolved before start time (T-0). Commence Exercise (COMMEX)/Finish Exercise (FINEX) times will be established along with the critique location and time.

b. Execution. Essential to smooth execution of the drill package is proper communication between team members, preventing confusion caused by unplanned events, actual equipment losses, scenario generation malfunctions, safety considerations, etc. Direction to and from CSTT members on adjustments to the time line, cancellation of drills and problem freeze and restarts are easily coordinated.

Note: Correct safety violations and hazardous practices immediately. If necessary, freeze the problem until corrections are made and adjust the time line accordingly.

c. Critiques (Figures 2-3-1 and 2-4-1). Conduct on-station critiques with the operator/maintenance man/area supervisor at the conclusion of each drill while the events are still fresh in his/her mind (time and events permitting; if not, conduct at the conclusion of the drill package). Sample items for discussion include:

- Communication flow
- Casualty recognition and reporting
- Use of available assets
- Maintenance of the tactical picture throughout

Conduct the CSTT debrief beginning with each drill guide and progress through the supervisor level and warfare areas. Discuss any weak areas in both the trainees and training, initiating actions to increase proficiency. Key personnel (Team Leader/Drill Initiator/Drill Evaluators should also be in attendance. Written critiques will provide a basis for future training requirements as well as a training history and are an excellent guide for the debriefs.

3. Lessons Learned. Historically, the major areas requiring training emphasis are:

a. System Baseline. A valid system baseline is a must for effective combat systems operations. Accurate status of combat systems equipment, including power source, is necessary for proper, timely responses to problems requiring reconfiguration of equipments and the effective employment of available weapons.

b. Casualty Symptom Recognition and Reporting. This is the number one cause of excessive restoration/reconfiguration time and communications. "The 49 radar is broken" is not a good report and requires amplification over an internal tactical circuit before the casualty control organization effects the proper course of action. "Lost 49 video, transmitter down and will not reset" gives the technician an immediate starting point.

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c. Internal Communications. Accurate, concise and brief communications are a must. Inaccurate casualty reports, requests for DC routes naming every DC facility instead of preplanned routes, lack of attention of phone talkers and improper phone talking procedures cause mass confusion, inappropriate actions and lack of confidence in the ship's ability to sustain combat systems operations. Correcting this problem requires an aggressive shipboard training program in the proper procedures.

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CASUALTY CONTROL DRILL GUIDES

DG _____/_____

TITLE:

PURPOSE:

REFERENCES:

SAFETY PRECAUTIONS:

(Forces afloat will comply with Navy Safety Precautions for Forces Afloat, OPNAVINST 5100 series)

CAUTIONS:

DESCRIPTION OF PROCEDURES:

(Casualty Insertion)

EXPECTED ACTIONS:

EXPECTED/POSSIBLE PROBLEMS:

_____ COLD CHECKED BY: _____
(date) printed name, rate/rank signature

_____ HOT CHECKED BY: _____
(date) printed name, rate/rank signature

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SAMPLE CSCC DRILL TRAINING PACKAGE

DATE _____

CSTT TRAINING PACKAGE

PURPOSE - _____

REQUIREMENTS - _____

REMARKS - _____

(CSTT MEMBERS)

TEAM LEADER

EMO

ASUW

AIR D & T

ASW

EW

START
TIME DRILL LOSS OF:

TITLE

CASUALTY CASUALTY
INSERTER OBSERVER

SUBMITTER (EMO)

REVIEWED (OPSO)

APPROVED (CO)

SAMPLE CRITIQUE SHEET (INITIATOR)

DATE _____

CSTT CASUALTY CONTROL DRILL CRITIQUE

DRILL _____

TITLE _____
TIME _____

CASUALTY INSERTED _____
SYMPTOMS NOTICED _____
CAUSE DETERMINED _____

1. INITIAL RESPONSE _____

2. COMMUNICATIONS _____

3. SAFETY PROCEDURES FOLLOWED _____
CAS-CONTROL PROCEDURES FOLLOWED _____
SYSTEM PROPERLY RESTORED _____

4. PROBLEMS NOTED 1. _____
2. _____
3. _____

5. DEBRIEF COMMENTS _____

RECOMMENDATION _____

OBSERVER _____

YES NO
FEEDBACK REQUIRED _____

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SAMPLE CRITIQUE SHEET (SUPERVISOR)

DATE _____

CSTT COMBAT SYSTEM SUPERVISOR CRITIQUE

SUPERVISOR AREA _____

1. COMMUNICATIONS
NET ESTABLISHED/MAINTAINED
PHONE CHECKS CONDUCTED
NET USAGE CONTROLLED
CSOOW/CSC UPDATES

YES

NO

2. STATUS BOARD UTILIZATION
CASUALTY TRACKING
PERSONNEL TRACKING

3. CSOSS UTILIZATION
PROPER USAGE
FAMILIAR WITH PROCEDURES

4. PROBLEMS NOTED _____

5. DEBRIEF COMMENTS _____

RECOMMENDATION _____

OBSERVER _____

YES

NO

FEEDBACK REQUIRED _____

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COMBINED COMBAT SYSTEMS TACTICAL/CASUALTY CONTROL PROCEDURAL GUIDE

1. A major training objective is to exercise the ship at controlling potentially cascading casualties in combination with realistic operational situations. Training to sustain maximum combat system capability under adverse conditions requires the active involvement of the ship's CSTT supported by SERT, using timed drill packages. A drill package is a collection of drill guides designed to exercise the combat system under varied conditions ranging from exercising a specific work center or system to fully integrated casualty control involving damage control, engineering casualty control and combat systems casualty control under scenario-driven conditions. The goal is to provide the tactical users with maximum firepower and detection available, in a timely manner, for any given situation. The effectiveness of the crew is determined by the evaluations of the CSTT using on-station debriefs and post-scenario critiques. Written critiques will provide a basis for future training requirements as well as a training history.

a. Drill Package. The drill package development sequence provided in Figure 1-1-1 of enclosure (1) shall be utilized in the formulation of the overall combat systems tactical/casualty control scenario. Figure 3-1-1 is an example of a basic drill plan. The package will be briefed before its conduct and critiqued upon its conclusion. The number of CSTT members required to conduct the drill package will depend on its purpose, requirements and complexity. The drill package should contain the following:

(1) Purpose - The goal of the package. This will vary in complexity from exercising a warfare area with no casualties to a multi-threat scenario with multiple casualties across all departments exercising the entire crew.

(2) Requirements - Define the scenario and equipment required to conduct the drill package. The scenario can be generated using available onboard simulation equipment to exercise the tactical user in the various warfare areas. Adding casualties to the scenario at key points tests the reaction of the tactical users to accurately report the problem and to continue "fighting through" using available equipments of casualty reconfiguration of the affected equipment. It will also serve as a test of the maintenance organization in the exercise of autonomous casualty control and restoration actions allowing minimum impact to the tactical users.

(3) Remarks - Amplify, as necessary, major events, losses and their impact during the execution of the drill package, tactical impact of the overall package and any safety warnings and/or cautions. This may be particularly important when conducting at-sea drill packages.

(4) Team Members - Define the responsibilities and location of CSTT members during conduct of the drill package. The number of personnel required will vary with the scope of the package.

(5) Casualty Control Drills are imposed on a time sequence basis by drill, drill title and the casualty initiator/evaluator. The timing should be scheduled to coincide with key events and allow a reasonable time for the initiator/evaluator to fully conduct his assigned tasks. The number of drills will depend on the scope of the package.

(6) Casualty Control Drill Package - Generated by the CSTT and submitted via the chain of command for approval.

2. Pre-Exercise Brief. After a drill package has been approved, the Team Leader or his designated representative shall conduct a pre-exercise brief. The following steps are prescribed as a minimum:

a. Ensure the timely notification of all CSTT members specified as initiators/observers for the exercise.

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b. Arrange the use of a suitable, quiet location for the professional conduct of the brief.

c. Ensure timely arrival of all specified CSTT members and conduct the brief as scheduled.

d. Highlight specific drill cautions and overall tactical impact of the drill.

e. Review previous drill critiques for lessons learned.

f. Answer any questions posed by CSTT members during the brief.

3. Exercise Conduct. Exercises shall be conducted in a professional manner under the management of the Team Leader. CSTT observers will note observations on a standard critique form. Members will pay particular attention to the detailed observation of the following key points and prompting questions:

a. Symptom Recognition. Did the operator or technician correctly identify all symptoms associated with the problem? Were correct reports made? Were established communication procedures used? Were all necessary personnel apprised of the casualty?

b. Fault Isolation. Did technicians quickly and correctly isolate the system fault? Were casualty control folders properly used? Was proper consideration given to the impact of isolation actions which may affect other systems? Were symptoms considered in selecting the isolation actions?

c. Tactical Impact Assessment. Did casualty control organization properly assess the tactical impact of the casualty? Were system diagrams, space folders, Combat Systems Technical Operating Manuals (CSTOMS) and other technical documentation properly used? Was the TAO properly informed of the tactical impact of the imposed casualty and provided with timely updates?

d. Reconfiguration. Were technicians aware of all casualty modes of operation? Were personnel efficient in performing reconfiguration actions? Was the system quickly and effectively reconfigured to restore the maximum combat readiness?

e. Restoration/Initialization. Were proper technical manuals and test equipment used to effect restoration of the casualty? Were sound troubleshooting techniques employed? Were technicians able to correctly identify specific causes of the casualty? Were parts properly identified and requested from supply support? Was equipment and/or system restoration effectively made? Were required interfaces initiated?

f. Securing. Were systems restored to normal operating modes? Were timely reports made? Was all supporting equipment properly secured and stored?

4. Exercise Debriefs. Valuable training lessons learned will be lost if exercises are not properly debriefed. CSTT will conduct debriefs in two stages:

a. Work Center Debriefs. The CSTT member observing the conduct of a drill watchstation will conduct a detailed debrief of the exercise in the affected work center. All aspects for personnel performance will be thoroughly discussed. Particular attention will be paid to seeking and answering questions that drill participants may have.

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b. Overall Debrief. The CSTT Team Leader, CSMO and the TAO will debrief the conduct of the exercises. Members will emphasize problem areas noted and training shortfalls that require additional training. During the overall debrief, all drill critiques will be presented to the Team Leader for consolidation (Figure 3-3-1).

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SAMPLE TRAINING PACKAGE

DATE _____

CSTT TRAINING PACKAGE

PURPOSE -

REQUIREMENTS -

REMARKS -

(CSTT MEMBERS)

TEAM LEADER

EMO

ASUW

AIR D & T

ASWM

EW

(AAW-AIC)

SYSGON

WEAPONS

START
TIME

DRILL

LOSS OF:

TITLE

CASUALTY
INSERTER

CASUALTY
OBSERVER

[illegible]

SUBMITTED (CDCO)

REVIEWED (OPSO)

APPROVED (CO)

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COMBAT SYSTEMS TACTICAL/CASUALTY CONTROL

DATE _____

INTEGRATED CASUALTY CONTROL TRAINING PACKAGE

PACKAGE # _____ SCENARIO _____

TIME	COMBAT SYSTEM	ENGINEERING	DAMAGE CONTROL
:00			
:05	ESM DISCLOSURE NO. 1		
:05	DG13/EWS COMPOUND LEG FRACTURE IN EW MODULE	GTM #17 PROP. TURBINE L/O PRESS LOW/CLASS "B" FIRE IN GTM	
:05	DG16/EWS LOSS OF INTERFACE WITH ACDS		
:20	LOOKOUT REPORTS AIRCRAFT POSIT ANGLE 2		
:20	DG6/UWS LOSS OF ELECTRONIC COOLING WATER TO DETECTION AND TRACKING (PIPE RUPTURE)		RUPTURED PIPE TRAINING IN EACH REPAIR LOCKER
:20	DG7/AUXW LOSS OF 49 COOLING SKID (PIPE RUPTURE)		FLYING SQUAD (PIPE RUPTURE)
:20	DG1/FCS LOSS OF MK-23 - ACDS INTERFACE		
:40	DGI/CIWS GUN JAM STBD SIDE		
:42	VIDEO SEPARATION TRACK 3001 ASCM ATTACK		
:45	HIT "ALPHA" CLASS "B" FIRE IN MER 2	MSF #1 CLASS "B" FIRE IN MER 2	CLASS "B" FIRE IN MER 2

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TRAINING CRITIQUE (BY WARFARE AREA)

DRILL PACKAGE _____ DATE _____

WARFARE AREA _____

1. WATCHSTATION INITIAL CONFIGURATION _____

2. TACTICAL/COMBAT SYSTEMS CONTROL DEFICIENCIES _____

3. CASUALTY CONTROL DEFICIENCIES _____

4. COMMUNICATIONS _____

5. DEBRIEF COMMENTS _____

PROBLEM _____

RECOMMENDATION _____

FEEDBACK REQUIRED FOR:	PROCEDURE ID	_____	_____
	DRILL GUIDE	_____	_____
	MANUAL NO.	_____	_____

REVIEWED: _____

OPSO

CO